

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (CURRENTLY AMENDED) ~~A method for making a mixture of peptides and surface active agents, comprising~~ The method of claim 29, wherein the mixture of the post-fermentation mixture and the surface-active agent is obtained by:

fermenting a plurality of yeast cells in the presence of a nutrient source ~~to obtain a fermentation product containing peptides,~~

disrupting the cellular structure of some of the plurality of yeast cells to obtain the post-fermentation mixture containing peptides, and

combining the ~~fermentation product obtained from said plurality of yeast cells~~ post-fermentation mixture with a the surface-active agent.

2. (CURRENTLY AMENDED) The method of claim 1, wherein said disrupting the cellular structure of some of the plurality of yeast cells releases intracellular peptides from the yeast cells into the ~~fermentation product~~ post-fermentation mixture.

3. (CURRENTLY AMENDED) The method of claim 1, further comprising substantially separating the plurality of yeast cells from the ~~fermentation product~~ post-fermentation mixture.

4. (ORIGINAL) The method of claim 3, wherein said separating step takes place prior to said combining step.

5. (ORIGINAL) The method of claim 1, wherein the fermenting is performed under aerobic conditions.

6. (PREVIOUSLY PRESENTED) The method of claim 1, wherein the plurality of yeast cells comprises *saccharomyces cerevisiae*.

7. (PREVIOUSLY PRESENTED) The method of claim 1, wherein the plurality of yeast cells comprise one or more of *saccharomyces cerevisiae*, *kluveromyces marxianus*, *kluveromyces lactis*, *candida utilis*, *zygosaccharomyces*, *pichia*, or *hansanula*.

8. (ORIGINAL) The method of claim 1, wherein the nutrient source comprises a sugar.

9. (PREVIOUSLY PRESENTED) The method of claim 8, wherein the nutrient source further comprises one or more of diastatic malt, diammonium phosphate, magnesium sulfate, ammonium sulfate zinc sulfate, and ammonia.

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10. (ORIGINAL) The method of claim 1, wherein said disrupting the cellular structure of some of the plurality of yeast cells comprises physically disrupting the cellular structure of some of the plurality of yeast cells.

11. (PREVIOUSLY PRESENTED) The method of claim 10, wherein said physically disrupting comprises subjecting the yeast cells to one or more of a French Press, a ball mill, or a high-pressure homogenizer.

12. (ORIGINAL) The method of claim 1, wherein said disrupting the cellular structure of some of the plurality of yeast cells comprises chemically disrupting the cellular structure of some of the plurality of yeast cells.

13. (ORIGINAL) The method of claim 12, wherein said chemically disrupting comprises combining said plurality of yeast cells with a surface-active agent.

14. (ORIGINAL) The method of claim 12, wherein said chemically disrupting comprises adding about 2.5% to about 10% of a surfactant to a yeast cell suspension and agitating the mixture at a temperature of about 25° C to about 35° C.

15. (ORIGINAL) The method of claim 12, further comprising physically disrupting a plurality of said yeast cells.

16. (CURRENTLY AMENDED) The method of claim + 29, wherein said surface-active agent comprises a nonionic surfactant.

17. (CURRENTLY AMENDED) The method of claim + 29, wherein said surface-active agent comprises a combination of nonionic and anionic surfactants.

18. (CURRENTLY AMENDED) The method of claim ~~17~~ 29, wherein said surface-active agents comprise ethoxylated linear alcohol or alkyl ether sulfate.

19. (PREVIOUSLY PRESENTED) The method of claim 1, further comprising heating the plurality of yeast cells after the fermenting step.

20. (ORIGINAL) The method of claim 19, wherein said heating step comprises increasing the temperature of said plurality of yeast cells to between about 40° to about 60° C for about 2 to about 24 hours, followed by cooling to less than 25° C.

21. (ORIGINAL) The method of claim 20, wherein said heating step takes place prior to said disrupting step.

22-28. CANCELED

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29. (CURRENTLY AMENDED) A method for accelerating nutrient uptake in ~~a biological system~~ bacteria or yeast without a substantially commensurate increase of biomass, comprising ~~exposing~~ contacting said ~~biological system to the~~ bacteria or yeast with a mixture of fermentation product a post-fermentation mixture and a surface-active agents agent, produced by the method of claim 1 whereby the nutrient uptake in said bacteria or yeast is increased without a substantially commensurate increase of biomass.

30. (CURRENTLY AMENDED) The method of claim 29, wherein said ~~biological system comprises~~ bacteria or yeast are mixed in with wastewater.

31. (CURRENTLY AMENDED) The method of claim 29, wherein said ~~biological system comprises~~ bacteria or yeast are used in a sewage collection system.

32. (CURRENTLY AMENDED) The method of claim ~~29~~ 31, wherein said ~~biological~~ sewage collection system comprises a cross-flow membrane filtration system.

33. (CURRENTLY AMENDED) The method of claim ~~29~~ 31, wherein said ~~biological~~ sewage collection system comprises a cooling tower.

34-39. CANCELED

40. (CURRENTLY AMENDED) ~~A method for making a mixture of peptides and surface active agents, comprising~~ The method of claim 29, wherein the mixture of the post-fermentation mixture and the surface-active agent is obtained by:

admixing a plurality of yeast cells with an alcohol at a temperature of at least 40° C to obtain a peptide product,

removing the alcohol to obtain the post-fermentation mixture containing peptides,
and

combining the ~~peptide product obtained from said plurality of yeast cells~~ post-fermentation mixture with a surface-active agent.

41. (CURRENTLY AMENDED) The method of claim 40, further comprising separating the plurality of yeast cells from the ~~peptide product~~ post-fermentation mixture.

42. (CURRENTLY AMENDED) The method of claim 41, wherein said plurality of yeast cells are separated from said ~~peptide product~~ post-fermentation mixture by filtration.

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43. (CURRENTLY AMENDED) The method of claim 42, further comprising treating the ~~peptide-product~~ post-fermentation mixture with charcoal after it is separated from the plurality of yeast cells.

44. (ORIGINAL) The method of claim 40, wherein said alcohol is methanol-denatured alcohol.

45. (CURRENTLY AMENDED) The method of claim 40, wherein said admixing step comprises admixing a plurality of yeast cells with an alcohol at a temperature of at least 60° C under agitation for at least about 2 hours.

46. (CURRENTLY AMENDED) The method of claim 40, further comprising adding water to said ~~peptide-product~~ post-fermentation mixture.

47. (CURRENTLY AMENDED) The method of claim 40, further comprising refining the ~~peptide-product~~ post-fermentation mixture and retaining those peptides having a molecular weight of less than about 30,000 daltons.

48. (WITHDRAWN AND AMENDED) The method of claim 40, further comprising refining the ~~peptide-product~~ post-fermentation mixture and retaining those peptides having a molecular weight of less than about 24,000 daltons.

49. (WITHDRAWN AND AMENDED) The method of claim 40, further comprising refining the ~~peptide-product~~ post-fermentation mixture and retaining those peptides having a molecular weight of less than about 17,000 daltons.

50. (WITHDRAWN AND AMENDED) The method of claim 40, further comprising refining the ~~peptide-product~~ post-fermentation mixture and retaining those peptides having a molecular weight of between about 6,000 daltons and about 17,000 daltons.

51. (WITHDRAWN) The method of claim 47, wherein said refining is performed using anion exchange chromatography.

52. (CURRENTLY AMENDED) The method of claim ~~51~~ 47, further comprising refining performed by molecular sieve chromatography.

53-58. CANCELED

59. (NEW) A method for accelerating nutrient uptake in bacteria or yeast without a substantially commensurate increase in biofilm production, comprising contacting said bacteria or yeast with a mixture of a post-fermentation mixture and a surface-active agent,

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whereby the nutrient uptake in said bacteria or yeast is increased without a substantially commensurate increase in biofilm production.

60. (NEW) The method of claim 59, wherein the mixture of the post-fermentation mixture and the surface-active agent is obtained by:

fermenting a plurality of yeast cells in the presence of a nutrient source,
disrupting the cellular structure of some of the plurality of yeast cells to obtain the post-fermentation mixture containing peptides, and
combining the post-fermentation mixture with the surface-active agent.

61. (NEW) The method of claim 59, wherein the mixture of the post-fermentation mixture and the surface-active agent is obtained by:

fermenting a plurality of yeast cells in the presence of a nutrient source,
heating the plurality of yeast cells;
disrupting the cellular structure of some of the plurality of yeast cells to obtain the post-fermentation mixture containing peptides, and
combining the post-fermentation mixture with the surface-active agent.

62. (NEW) The method of claim 61, wherein said heating step comprises increasing the temperature of said plurality of yeast cells to between about 40° to about 60° C for about 2 to about 24 hours, followed by cooling to less than 25° C.